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10/579,593	05/17/2006	Edgar Von Gellhorn	041281.00010	3553
26712 7590 02/02/2010 HODGSON RUSS LLP THE GUARANTY BUILDING 140 PEARL STREET SUITE 100 BUFFALO, NY 14202-4040				
EXAMINER				
TUROCZY, DAVID P				
ART UNIT		PAPER NUMBER		
1792				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/579,593

**Applicant(s)**

VON GELLHORN ET AL.

**Examiner**

DAVID TUROCY

**Art Unit**

1792

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6, 8, 9, 11, 13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 9, 11, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF-08)
- Paper No(s)/Mail Date 6/16/06
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendments, filed 12/17/2009, have been fully considered and reviewed by the examiner. The examiner notes the amendment to claims 1, 5, 6, 8, 12, and 14 and the cancellation of claims 7, 10 and 12. In view of the amendment the examiner has withdrawn the claim objections and 35 USC 1121st and 101 rejections. Claims 1-6, 8-9, 11, 13-14 remain pending in the instant application.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims are directed at newly added claim limitations and therefore are deemed moot in view of the new ground(s) of rejection. Applicant's arguments with respect to the IDS are persuasive.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 depends from a cancelled claim 7. Therefore Claim 14 is rejected as improper dependent. The examiner notes the claim limitations are encompassed by claim 8, 9, and 13, which depend from independent process claims 5 and 6. Therefore

this claim is rejected over the prior art for the same reasons as set forth in the prior art rejection to claims 8, 9, and 13 below.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simmons in view of US Patent 5744241 by Hobson et al. , US Patent 5244730 by Nguyen et al., and US Patent 4767641 by Kieser et al as evidenced by the applicants specification.

Claims 1: Simmons discloses a PTFE release coating on the surface of a conveyor belt as discussed above, but fails to explicitly disclose a plasma process. However, Hobson discloses PTFE release coatings are known in the art to be deposited by plasma process (column 3, lines 40-45), Nguyen discloses known and suitable plasma conditions for PFTE film formation, and Kieser discloses plasma can be used to deposit films on various substrates. Therefore, taking the references' collectively it would have been obvious to one of ordinary skill in the art to have modified Simmons to deposit the PFTE coating with a plasma process with a reasonable expectation of successful and predictable results because Hobson discloses PTFE is deposited by

plasma process, Nguyen discloses known plasma processes for depositing the PTFE and Kieser discloses various substrate can be plasma coated.

As for the oxygen requirement, the examiner notes the results are merely a function of depositing the layer using plasma process, see applicant's specification page 4, lines 10-25.

Claims 2-4, 11: The process will inherently include an under layer and an outer layer (i.e. can not form a layer without first an under layer and thereafter an outer layer, the natural progression of deposition of films.) The references fails to explicitly disclose the PTFE thickness, however, determination of a film thickness is well within the skill of one of ordinary skill in the art and Simmons discloses the coating is applied for a specific reason, as a release coating, and therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to determine the appropriate and optimum PTFE thickness, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

7. Claims 1-6, 8-9, 11, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simmons in view of US Patent 5744241 by Hobson et al. , US Patent 4729906 by Kleeberg et al., and US Patent 4767641 by Kieser et al and further in view of US Patent 5888591 by Gleason and US Patent 4693799 by Yanagihara et al.

Claims 1 and 5: Simmons discloses a PTFE release coating on the surface of a conveyor belt as discussed above, but fails to explicitly disclose a plasma process.

However, Hobson discloses PTFE release coatings are known in the art to be deposited by plasma process (column 3, lines 40-45), Kleeberg discloses known and suitable plasma conditions for PTFE film formation, and Kieser discloses plasma can be used to deposit films on various substrates. Therefore, taking the references' collectively it would have been obvious to one of ordinary skill in the art to have modified Simmons to deposit the PTFE coating with a plasma process with a reasonable expectation of successful and predictable results because Hobson discloses PTFE is deposited by plasma process, Kleeberg discloses known plasma processes for depositing the PTFE and Kieser discloses various substrate can be plasma coated.

As for the plasma parameters: Kleeberg discloses PTFE formation using monomers, including  $C_2F_4$  or  $C_4F_8$ , and using a microwave plasma discharge at 2.45 GHz

As for the oxygen requirement, Gleason discloses supplying oxygen gas to the process chamber so as to provide a PTFE substrate surface with an oxygen content to provide certain benefits including better chemical properties of the film (Column 23, lines 35-47) and Yanaghara teaches gases, including  $O_2$  may simultaneously be added to the a plasma polymerization process to provide the benefit of oxygen addition (column 7, lines 20-25). Therefore, taking the references collectively, it would have been obvious to have included oxygen in the process during the plasma polymerization process because Gleason discloses benefits of including oxygen at the surface of the plasma polymerization PTFE film and Yanaghara discloses oxygen gas is a known and suitable addition to plasma polymerization process. As for the exact amount of oxygen,

this is clearly a result effective variable, too little oxygen will provide no added benefit and too much will hinder the deposition process and it would have been obvious to a person having ordinary skill in the art at the time the invention was made to determine the appropriate level of oxygen, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claims 2-4, 11: The process will inherently include an under layer and an outer layer (i.e. can not form a layer without first an under layer and thereafter an outer layer, the natural progression of deposition of films.) The references fails to explicitly disclose the PTFE thickness, however, determination of a film thickness is well within the skill of one of ordinary skill in the art and Simmons discloses the coating is applied for a specific reason, as a release coating, and therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to determine the appropriate and optimum PTFE thickness, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claim 6: The pulsing results in different plasmas as required by the claim. As for the requirement of air-to-air process, the examiner notes the conveyor belt, prior to loading into the chamber will be in the ambient air and after processing will be placed into ambient air and therefore this can reasonably be interpreted to be air-to-air because the claims fail to provide any process steps that will limit the claims to exclude such an interpretation.

Claims 8-9, and 13-14: Kleeberg discloses  $C_2F_4$ .

8. Claims 1-6, 8-9, 11,13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simmons in view of US Patent 5744241 by Hobson et al., US Patent 5888591 by Gleason et al., US Patent 4729906 by Kleeberg et al., and US Patent 4693799 by Yanagihara et al.

Claims 1 and 5: Simmons discloses a PTFE release coating on the surface of a conveyor belt as discussed above, but fails to explicitly disclose a plasma process. However, Hobson discloses PTFE release coatings are known in the art to be deposited by plasma process (column 3, lines 40-45) and Gleason discloses a method for deposition of a PTFE coating on the surface of a substrate that provides increased flexibility (Column 3) and discloses pulsing power to form multiple layers with an increase in film properties (figures for examples). Therefore, taking the references' collectively it would have been obvious to one of ordinary skill in the art to have modified Simmons to deposit the PTFE coating with a plasma process with a reasonable expectation of successful and predictable results because Hobson discloses PTFE is deposited by plasma process Gleason discloses known plasma processes for depositing the PTFE onto any number of substrates to reap the benefit of increased film flexibility and properties.

As for microwave plasma process: Kleeberg discloses PTFE formation using monomers, including  $C_2F_4$  or  $C_4F_8$ , and using a microwave plasma discharge at 2.45 GHz. Kleeberg discloses using the microwave provided a film with better properties.



Therefore taking the references collectively, it would have been obvious to have used the microwave plasma to deposit the film with a reasonable expectation of predictably depositing a film with improved properties.

As for the oxygen requirement, Gleason discloses supplying oxygen gas to the process chamber so as to provide a PTFE substrate surface with an oxygen content to provide certain benefits including better chemical properties of the film (Column 23, lines 35-47) and Yanaghara teaches gases, including O<sub>2</sub> may simultaneously be added to the a plasma polymerization process to provide the benefit of oxygen addition (column 7, lines 20-25). Therefore, taking the references collectively, it would have been obvious to have included oxygen in the process during the plasma polymerization process because Gleason discloses benefits of including oxygen at the surface of the plasma polymerization PTFE film and Yanaghara discloses oxygen gas is a known and suitable addition to plasma polymerization process. As for the exact amount of oxygen, this is clearly a result effective variable, too little oxygen will provide no added benefit and too much will hinder the deposition process and it would have been obvious to a person having ordinary skill in the art at the time the invention was made to determine the appropriate level of oxygen, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claims 2-4, 11: The process will inherently include an under layer and an outer layer (i.e. can not form a layer without first an under layer and thereafter an outer layer, the natural progression of deposition of films.) The references fails to explicitly disclose

the PTFE thickness, however, determination of a film thickness is well within the skill of one of ordinary skill in the art and Simmons discloses the coating is applied for a specific reason, as a release coating, and therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to determine the appropriate and optimum PTFE thickness, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claim 6: The pulsing results in different plasmas as required by the claim. As for the requirement of air-to-air process, the examiner notes the conveyor belt, prior to loading into the chamber will be in the ambient air and after processing will be placed into ambient air and therefore this can reasonably be interpreted to be air-to-air because the claims fail to provide any process steps that will limit the claims to exclude such an interpretation.

Claim 8-9 and 13-14: Kleeberg discloses C<sub>2</sub>F<sub>4</sub>,

9. Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simmons in view of US Patent 5744241 by Hobson et al., US Patent 4729906 by Kleeberg et al., and US Patent 4767641 by Kieser et al and further in view of US Patent 4693799 by Yanagihara et al. and Gleason and US Patent 5529631 by Yoshikawa et al. or 4<sup>th</sup> State, inc.

Simmons, Hobson, Kleeberg, Kieser, Yanagihara, and Gleason disclose all that is taught above and the examiner maintains the position with regards to air-to-air

process, however, cites here Yoshikawa, who discloses an air-to-air plasma process at figures, and 4th street, which discloses air-to-air design for plasma systems will provide benefits of coating continuous ribbons. Therefore, taking the references collectively, it would have been obvious to have used an air-to-air process with an expectation of predictable results because air-to-air plasma process is known and suitable in the prior art for coating a continuous substrate. The selection of something based on its known suitability for its intended use has been held to support a *prima facie* case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07.

10. Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simmons in view of US Patent 5744241 by Hobson et al., US Patent 5888591 by Gleason et al., US Patent 4729906 by Kleeberg et al., and further in view of US Patent 4693799 by Yanagihara et al. and US Patent 5529631 by Yoshikawa et al. or 4<sup>th</sup> State, inc.

Simmons, Hobson, Gleason, Kleeberg, and Yanagihara disclose all that is taught above and the examiner maintains the position with regards to air-to-air process, however, cites here Yoshikawa, who discloses an air-to-air plasma process at figures, and 4th street, which discloses air-to-air design for plasma systems will provide benefits of coating continuous ribbons. Therefore, taking the references collectively, it would have been obvious to have used an air-to-air process with an expectation of predictable results because air-to-air plasma process is known and suitable in the prior art for

coating a continuous substrate. The selection of something based on its known suitability for its intended use has been held to support a *prima facie* case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07.

### ***Information Disclosure Statement***

11. In view of the statements regarding the IDS filed 12/17/2009, the examiner notes the information disclosure statement (IDS) submitted on 6/16/2009 is in compliance with the provisions of 37 CFR 1.97 and 1.98. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID TUROCY whose telephone number is (571)272-2940. The examiner can normally be reached on Monday, Wednesday and Friday from 7 a.m. - 6 p.m., Tuesday and Thursdays 7-10 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David Turocy/  
Primary Examiner, Art Unit 1792